

I. AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1, cancel claims 2-4, 8, 11-15, 17-20, 23-25, 27-28, 31-34 without prejudice, and add new claims 37 and 38. No new matter has been added to the claims.

The following Listing of Claims replaces all prior versions of claims in the above-captioned application.

LISTING OF CLAIMS:

1. (Currently Amended) A copper-based alloy casting comprising:
69 to 88% of Cu by mass;
2 to 5% of Si by mass;
0.0005 to 0.04% of Zr by mass;
0.01 to 0.25% of P by mass; and
a remainder including Zn and inevitable impurities, and
the copper-based alloy casting satisfying $60 \leq \text{Cu} - 3.5 \times \text{Si} - 3 \times \text{P} \leq 71$, and having refined casted grains,

wherein the grains as cast of the copper-based alloy casting are refined during melt-solidification of a casting process, and a mean grain size of the refined casted grains after the melt solidification is 100 μm or less, and

wherein α , κ and γ -phases of the copper-based alloy casting occupy more than 80% of phase structure of the copper-based alloy casting.

2-4. (Cancelled)

5. (Previously Presented) The copper-based alloy casting according to claim 1, further comprising:

at least one element selected from the group consisting of 0.1 to 2.5% of Sn, 0.02 to 0.25% of Sb and 0.02 to 0.25% of As, by mass.

6. (Previously Presented) The copper-based alloy casting according to claim 1, further comprising:

at least one element selected from the group consisting of 0.004 to 0.45% of Pb, 0.004 to 0.45% of Bi, 0.03 to 0.45% of Se and 0.01 to 0.45% of Te, by mass.

7. (Previously Presented) The copper-based alloy casting according to claim 1, wherein P/Zr is in the range of 0.8 to 250, Si/Zr is in the range of 80 to 6000, and Si/P is in the range of 12 to 220.

8. (Cancelled)

9. (Previously Presented) The copper-based alloy casting according to claim 1, wherein Fe, or Ni, or Fe and Ni, contained as impurities are contained at 0.5% or less by mass.

10. (Previously Presented) The copper-based alloy casting according to claim 1, wherein Zr is in the range of 0.0010 to 0.0095% by mass.

11-15. (Cancelled)

16. (Previously Presented) The copper-based alloy casting according to claim 5, further comprising:

at least one element selected from the group consisting of 0.004 to 0.45% of Pb, 0.004 to 0.45% of Bi, 0.03 to 0.45% of Se and 0.01 to 0.45% of Te, by mass.

17-20. (Cancelled)

21. (Previously Presented) The copper-based alloy casting according to claim 5, wherein P/Zr is in the range of 0.8 to 250, Si/Zr is in the range of 80 to 6000, and Si/P is in the range of 12 to 220.

22. (Previously Presented) The copper-based alloy casting according to claim 6, wherein P/Zr is in the range of 0.8 to 250, Si/Zr is in the range of 80 to 6000, and Si/P is in the range of 12 to 220.

23-25. (Cancelled)

26. (Previously Presented) The copper-based alloy casting according to claim 7, wherein dendrites are crystallized, and the dendrites have shapes with no arms.

27-28. (Cancelled)

29. (Previously Presented) The copper-based alloy casting according to claim 5, wherein Fe, or Ni, or Fe and Ni, contained as impurities are contained at 0.5% or less by mass.

30. (Previously Presented) The copper-based alloy casting according to claim 6, wherein Fe, or Ni, or Fe and Ni, contained as impurities are contained at 0.5% or less by mass.

31-34. (Cancelled)

35. (Previously Presented) The copper-based alloy casting according to claim 5, wherein Zr is in the range of 0.0010 to 0.0095% by mass.

36. (Previously Presented) The copper-based alloy casting according to claim 7, wherein Zr is in the range of 0.0010 to 0.0095% by mass.

37. (NEW) The copper-based alloy casting according to claim 1, wherein the refined casted grains are circular or oval shaped, substantially without dendritic arms.

38. (NEW) A copper-based alloy casting comprising:
69 to 88% of Cu by mass;
2 to 5% of Si by mass;
0.0005 to 0.04% of Zr by mass;
0.01 to 0.25% of P by mass; and
a remainder including Zn and inevitable impurities, and
the copper-based alloy casting satisfying $60 \leq \text{Cu} - 3.5 \times \text{Si} - 3 \times \text{P} \leq 71$, and having
refined casted grains,

wherein the grains as cast are refined during melt-solidification of a casting process, and a mean grain size of the refined casted grains is 100 μm or less, wherein α , κ and γ -phases of the copper-based alloy casting occupy more than 80% of phase structure of the copper-based alloy casting, and wherein the refined casted grains include dendrites crystallized having shapes with no arms.